

CLAIMS:

1. A method of building a custom word list for use in text operations on an electronic device, comprising the steps of:
 - 5 scanning a collection of text items associated with a user of the electronic device to identify words in the text items;
 - assigning a weighting to each identified word; and
 - storing each identified word and its corresponding weighting.
- 10 2. The method of claim 1, wherein the collection of text items comprises text items stored at a computer system.
3. The method of claim 1, wherein the collection of text items comprises at least one type of text item selected from the group consisting of: sent messages,
15 documents, acronym lists, and existing word lists.
4. The method of claim 1, wherein the step of assigning a weighting comprises the step of:
 - calculating a frequency of occurrence of each identified word.
- 20 5. The method of claim 4, wherein the step of calculating a frequency of occurrence comprises the steps of:
 - determining a number of occurrences of each identified word in the collection of text items;
 - 25 identifying a maximum number of occurrences; and
 - calculating a frequency of occurrence of each identified word based on a number of occurrences of the identified word and the maximum number of occurrences.
- 30 6. The method of claim 1, further comprising the step of:
 - adjusting the weighting of an identified word when the word is used in text operations on the electronic device.

7. The method of claim 1, further comprising the step of:
determining a source of each text item in the collection of text items,
wherein the step of assigning a weighting comprises the step of calculating
5 the weighting for each identified word based on the source of the text item in which
the word was identified.
8. The method of claim 7, wherein text item sources include a user text item
source and an external text item source, and wherein text items from the user text
10 item source are assigned a higher weighting than text items from the external text
item source.
9. The method of claim 1, further comprising the steps of:
categorizing the identified words into categories; and
15 storing an indicator of the category of each identified word with the word and
its corresponding weighting.
10. The method of claim 9, wherein the categories are selected from the group
consisting of: address, name, hyperlink, recurring word grouping, different language
20 categories, and user added words.
11. The method of claim 1, wherein:
the collection of text items comprises an existing word list having words and
predefined weightings;
25 the step of assigning comprises the step of converting the predefined
weightings into converted weightings for each word in the existing word list; and
the step of storing comprises the step of storing each word in the existing
word list and its corresponding converted weighting.
- 30 12. The method of claim 11, wherein the step of converting comprises the step of
normalizing the predefined weightings.

13. The method of claim 11, wherein the step of converting comprises the step of applying a predetermined weighting factor to the predefined weightings.

14. The method of claim 1, further comprising the step of integrating each identified word and its corresponding weighting and an existing word list having words and predefined weightings.

15. The method of claim 14, wherein the step of integrating comprises the step of converting the weighting of each identified word into a converted weighting.

16. The method of claim 14, wherein the step of integrating comprises the step of converting the predefined weightings into converted weightings.

17. The method of claim 14, wherein the step of integrating comprises the step of converting the weighting of each identified word and the predefined weighting of each word in the existing word list into a converted weighting.

18. The method of claim 14, wherein the step of integrating comprises the steps of:

determining whether any of the identified words occur in the existing word list; and
assigning a resolved weighting to identified words that occur in the existing word list.

19. The method of claim 18, wherein the resolved weighting is the weighting of the identified word.

20. The method of claim 18, wherein the resolved weighting is based on the weighting of the identified word and the predefined weighting of the identified word in the existing word list.

21. The method of claim 1, comprising the step of:

receiving a selection input from the user to select text items to be included in the collection of text items.

22. The method of claim 2, wherein the steps of scanning, assigning, and storing are performed at the computer system, and wherein the method further comprises the steps of:

mapping each identified word to a keystroke sequence on the electronic device; and

storing the identified words and their corresponding weightings and keystroke sequences at the electronic device.

23. The method of claim 22, further comprising the steps of:

receiving a user input word at the electronic device;

mapping the user input word to a keystroke sequence on the electronic device;

assigning a weighting to the user input word;

storing the user input word and its corresponding weighting and keystroke sequence at the electronic device; and

transferring the user input word to the computer system.

24. A system for building a custom word list for use in text operations on an electronic device, comprising:

a first data store for storing a collection of text items associated with a user of the electronic device;

a scanning module configured to scan the collection of text items to identify words in the text items;

a weighting module configured to assign a weighting to each identified word; and

a second data store for storing each identified word and its corresponding weighting.

25. The system of claim 24, wherein the first data store and the second data store are implemented in a single memory component.

26. The system of claim 24, wherein the first data store comprises storage areas
5 in a plurality of memory components.

27. The system of claim 24, further comprising a keyboard mapper for mapping each identified word to a keystroke sequence on the electronic device.

10 28. The system of claim 24, wherein the first data store, the scanning module, the weighting module, and the second data store are implemented at a computer system, further comprising a word list loader at the electronic device configured to receive the identified words and their corresponding weightings from the second data store, and to store the identified words and their corresponding weightings at the
15 electronic device.

29. A method of processing a custom word list for use in text operations on an electronic device, the custom word list including words identified in a collection of text items associated with a user of the electronic device and corresponding
20 weightings assigned to the words, comprising the steps of:

mapping each word to a keystroke sequence on the electronic device; and
storing the words and their corresponding weightings and keystroke sequences at the electronic device.

25 30. The method of claim 29, wherein the electronic device comprises a keyboard having a plurality of keys, each key being associated with at least one character, and wherein the step of mapping comprises determining which of the plurality of keys is associated with characters in each word.

30 31. The method of claim 29, further comprising the steps of:
detecting words having a corresponding weighting below a threshold weighting; and

deleting any detected words from the custom word list.

32. The method of claim 31, wherein the custom word list further comprises an indicator of one of a plurality of categories for each word, and wherein the step of
5 detecting comprises the step of detecting words having corresponding weightings below the threshold weighting in particular ones of the plurality of categories.

33. The method of claim 31, further comprising the step of prompting a user of the electronic device, before the step of deleting, to confirm that the detected words
10 should be deleted.

34. The method of claim 29, further comprising the steps of:
performing a spell check operation on the custom word list to detect
misspelled words in the custom word list; and
15 deleting any detected misspelled words from the custom word list.

35. The method of claim 34, wherein the custom word list further comprises an indicator of one of a plurality of categories for each word, the plurality of categories including a user added word category, and wherein the step of performing a spell
20 check operation comprises the step of detecting misspelled words in categories other than the user added word category.

36. The method of claim 29, further comprising the step of integrating the custom word list with an existing word list.
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37. The method of claim 36, wherein the existing word list has words and predefined weightings.

38. The method of claim 36, wherein the existing word list includes input words and associated with replacement words, and wherein the step of integrating
30 comprises the steps of:

determining whether each input word and replacement word occurs in the custom word list; and

for each input word or replacement word that does not occur in the custom word list:

- 5 assigning a weighting to the input word or the replacement word;
 mapping the input word or the replacement word to a keystroke sequence on the electronic device, such that a replacement word is mapped to the keystroke sequence of the corresponding input word; and
 adding the input word or the replacement word and its corresponding
10 weighting and keystroke sequence to the custom word list.

39. The method of claim 38, further comprising the step of, for each replacement word that occurs in the custom word list, mapping the replacement word to the keystroke sequence of its corresponding input word.

- 15 40. The method of claim 39, further comprising the step of appending the keystroke sequence of the input word corresponding to a replacement word that occurs in the custom word list to an entry in the custom word list for the replacement word.

- 20 41. The method of claim 39, further comprising the step of adding a new entry in the custom word list for a replacement word that occurs in the custom word list, the new entry comprising the keystroke sequence of the input word corresponding to the replacement word.

- 25 42. A system for processing a custom word list for use in text operations on an electronic device, the custom word list including words identified in a collection of text items associated with a user of the electronic device and corresponding weightings assigned to the words, comprising:

- 30 a key mapper for mapping each word to a keystroke sequence on the electronic device; and

a word list loader configured to receive the custom word list and mapped keystroke sequences, and to store the custom word list and the mapped keystroke sequences at the electronic device.

- 5 43. A method of using a custom word list in text operations on an electronic device, the custom word list including words identified in a collection of text items associated with a user of the electronic device and corresponding weightings assigned to the words, comprising the steps of:

receiving inputs from a user on the electronic device; and
10 accessing the custom word list to identify words in the word list representing possible variants of the inputs.

44. The method of claim 43, wherein the custom word list further comprises an indicator of one of a plurality of categories for each word, and wherein the step of
15 accessing comprises the step of accessing words in at least one of the plurality of categories.

45. The method of claim 43, further comprising the step of:
displaying the variants on the electronic device.

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46. The method of claim 45, further comprising the step of:
sorting the variants according to corresponding weightings in the custom word list to generate a sorted list of variants,

wherein the step of displaying the variants comprises displaying the sorted list
25 of variants.

47. The method of claim 45, wherein the custom word list further comprises an indicator of one of a plurality of categories for each word, further comprising the steps of:

30 sorting the variants according to corresponding category in the custom word list to generate a sorted list of variants,

wherein the step of displaying the variants comprises displaying the sorted list of variants.

48. The method of claim 46, wherein the step of sorting further comprises sorting
5 the variants of each category according to corresponding weightings in the custom word list.

49. The method of claim 44, wherein the step of accessing words in at least one
of the plurality of categories comprises the steps of:
10 determining a type of text operation being performed on the electronic device;
determining whether the text operation is associated with any of the plurality
of categories; and
accessing words in any categories associated with the text operation.

15 50. The method of claim 49, wherein the text operation is electronic mail address entry, and associated categories include name and email address.

51. The method of claim 43, wherein the variants of the inputs comprise predictive
text variants associated with the received inputs.
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52. The method of claim 43, wherein the variants of the inputs comprise word
completion variants that begin with the received inputs.

53. The method of claim 46, further comprising the steps of:
25 receiving a selection input from the user; and
selecting one of the variants in the sorted list of variants in response to the
selection input.

54. The method of claim 53, wherein the selection input is a keystroke on a space
30 bar key, and the one of the variants selected is a first variant in the sorted list.

55. The method of claim 43, wherein the custom word list further comprises a keystroke sequence mapping each word in the custom word list to a corresponding sequence of keystrokes on a keyboard of the electronic device.

5 56. The method of claim 55, wherein the received inputs comprise an input sequence of keystrokes, and wherein the step of accessing comprises searching the custom word list for keystroke sequences containing the input sequence.

57. The method of claim 56, wherein the step of accessing is repeated for each
10 keystroke in the input sequence.

58. The method of claim 56, wherein the step of accessing, for each keystroke in the input sequence, comprises accessing variants identified for the preceding keystroke in the input sequence.

15 59. The method of claim 56, wherein the step of accessing comprises searching the custom word list for keystroke sequences that, when concatenated, contain the input sequence, and wherein the variants include concatenated words corresponding to the keystroke sequences that, when concatenated, contain the input sequence.

20 60. The method of claim 45, further comprising the steps of, for each variant:
searching a text replacement dictionary including input words mapped to respective replacement words for an input word corresponding to the variant; and
displaying the replacement word to which the input word corresponding to the
25 variant is mapped, where an input word corresponding to the variant is found in the text replacement dictionary.

61. The method of claim 53, further comprising the steps of:
searching a text replacement dictionary including input words mapped to
30 respective replacement words for an input word corresponding to the selected variant; and

replacing the selected variant with the replacement word to which an input word corresponding to the selected variant has been mapped, where an input word corresponding to the variant is found in the text replacement dictionary.

5 62. A method of maintaining a custom word list in text operations on an electronic device, the custom word list including words identified in a collection of text items associated with a user of the electronic device and corresponding weightings assigned to the words, and having been generated and stored at a computer system and transferred to the electronic device, the method comprising the steps of:

10 detecting that a word entered by a user does not appear in the custom word list;

assigning a weighting to the word entered by the user;

adding the word entered by the user and its corresponding weighting to the custom word list at the electronic device; and

15 transferring the word entered by the user to the computer system.

63. The method of claim 62, wherein the step of transferring comprises transferring the word entered by the user and its corresponding weighting to the computer system.

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64. The method of claim 62, wherein each word in the custom word list is mapped to a keystroke sequence on a keyboard of the electronic device when the custom word list is transferred from the computer system to the electronic device, further comprising the steps of:

25 determining a keystroke sequence on a keyboard of the electronic device corresponding to the word entered by the user; and

storing the determined keystroke sequence on the electronic device.

65. The method of claim 62, further comprising the steps, before the step of
30 adding, of:

determining whether the custom word list exceeds a predetermined size; and
deleting words having lowest weightings from the custom word list.

66. The method of claim 65, wherein the custom word list further comprises a category indicator for each word, and wherein the step of deleting comprises deleting words having lowest weightings in one or more categories.

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67. The method of claim 65, wherein the custom word list further comprises a category indicator for each word, and wherein the step of deleting comprises deleting words that have lowest weightings and are not in one or more protected categories.

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68. The method of claim 65, further comprising the step of marking the word entered by the user as a protected word in the custom word list, and wherein the step of deleting comprises deleting words having lowest weightings among non-protected words in the custom word list.

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69. The method of claim 62, further comprising the steps of:
detecting user entry of a word in the custom word list; and
adjusting the weighting of the word in the custom word list.

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70. The method of claim 69, further comprising the step of:
transferring the adjusted weighting of the word to the computer system.